

IBM Industry Models For Financial Services - The Information FrameWork (IFW)



IBM Component Business Model (CBM)

Financial services organizations are adopting a more componentized approach to their businesses, realizing substantial changes in the effectiveness, efficiency and flexibility of their organizations, driving sustainable growth.

- A componentized approach:
- allows the organization to be more adaptive and to respond quickly to changing customer needs
 - enables the organization to focus on achieving competitive differentiation
 - optimizes interactions with partners, suppliers and customers
 - allows the organization to identify and leverage best practice behaviors across the organization
 - presents opportunities to shift the organization from a fixed to variable cost structure

The Component Business Model (CBM) is an organizing framework combining people, process and technology perspectives that drives substantial new insights and allows new methods of analysis for the organization. The CBM is a logical representation, or map, of a business that reveals its essential building blocks. A business component can be defined as the collection of the business activities it performs and its supporting people and systems requirements.

The Component Business Model can be populated with IFW content thereby transforming the CBM from components to solutions. The three key areas supported by the IFW are business intelligence, enterprise application integration and business process re-engineering. The IFW provides proven, detailed banking model content that supports more than 80% of the high level function components listed in the CBM.

Process & Integration: CBM Business Components, representing functional areas of a business, are underpinned by a number of IFW Business Processes. Tasks and activities in the IFW processes that are candidates for automation are then defined in further details in the IFW Integration Models by a series of template functional specifications and designs.

Data: CBM Business Components are underpinned by a number of IFW Business Solution Templates. Each IFW Business Solution Template can then be traced back to an entity-relationship data model such as Banking Data Warehouse Model or Financial Services Data Model. Each data model can then be used as the basis for the generation of databases (DW, or OLAP structures.)

Information FrameWork (IFW)

What is the Information FrameWork (IFW)

The IFW is a set of information, process and integration models that represent leading practice systems development in the financial services industry. It is an architectural blueprint with detailed financial services business content that can be applied to initiatives on an enterprise-wide or specific project basis. It enables organizations to create detailed specifications and cross-enterprise architectures for information systems. These models represent over 300 cumulative person-years of development, incorporating input from many leading financial services organizations.

By providing a set of pre-defined business templates, a framework enables the scoping, specification and design of information solutions, which are:

- faster, through use of generic model specifications and designs
- cost effective, through reduced analysis costs and increased re-use of existing assets
- better, through increased quality and consistency
- lower risk, by building on good practice and by ensuring a strategic perspective

The IFW provides a common language for use across the organization. It typically supports over 80% of an organization's data, process and core application function analysis, and design requirements. The models are designed to be readily customized and extended to cover the specific requirements of a financial services organization.

The IFW is valuable for initiatives such as:

- data warehouse and mart development
- enterprise application integration
- message based architecture development
- business process re-engineering
- information systems scoping and requirements definition
- application systems package evaluation

Master Data Management

IBM Master Data Management is SOA-based middleware designed to provide organizations the most flexible framework to support enterprise structured and unstructured data and business services, aligned with key business process. IBM brings together all the key core components required for a successful enterprise MDM strategy: information integration, content management, business intelligence, and master data management for specific data objects -- including product, customer, and supplier -- and master data solutions for specific industries.

WebSphere Customer Center (WCC) provides real-time, transactional customer data integration (CDI). Despite the significant time and resources already invested in CRM, many organizations still lack a true enterprise-wide view and update environment for their customers. By connecting these systems to an enterprise customer hub, WCC provides a unified view of the customer across multiple business and product silos. It delivers this single view and update environment to all channels and CRM applications, enabling multi-channel integration and consistent customer service.

Information FrameWork (IFW)

IFW Foundation Models - for Communication and Standardization

Financial Services Data Model

..... standardized enterprise data definitions

The **Financial Services Data Models (FSDM)** comprises an enterprise-wide vocabulary used to precisely define the meaning of the many concepts (e.g. Customer, Product, Channel) that make up the financial services organization's view of itself and its business environment. It enables all aspects or points of view of a particular business concept to be expressed in terms of the elements within a multidimensional classification hierarchy. It is a taxonomy of financial services business terms based upon hundreds of engagements. The FSDM is used as a prime source of business metadata, assisting the business find, understand and manage its data resources. The FSDM comprises over 3800 definitions of business classifications. Scoped portions of FSDM can be easily transformed to an entity-relationship structure, if required. It provides enterprise wide definitions of concepts and data and forms part of a common language between business and IT.

Financial Services Function Model

..... standardized enterprise business function analysis

The **Financial Services Function Model (FSFM)** defines the set of independent business functions that must be managed by a financial services organization in order to operate successfully. It achieves this set by systematically breaking down the overall business into smaller functions until a list of non-overlapping, discrete functions is developed. The FSFM comprises over 500 definitions of business function. It provides enterprise-wide definitions of business function, independent of organization structure or line of business and forms part of a common language between business and IT. It provides granular, detailed, functional definitions to the high level Component Business Model content. The FSFM can be a rapid and accurate scoping tool for new initiatives.

IFW Information Models for Data Rationalization, Data Warehousing and Data Marts

Examples of the Business Scope of the Information Models

Regulatory Compliance	Risk	Relationship Marketing	Profitability	Asset & Liability Management
Balance Sheet Classified Approach	Securitization Analysis	Campaign Analysis	Activity Based Costing	Capital Allocation
Balance Sheet Order of Liquidity Approach	Collections Analysis	Cross Sell Analysis	Channel Profitability	Credit Loss Allowance
Balance Sheet Net Assets Approach	Credit Risk Analysis	Customer Attrition	Customer Lifetime Value Analysis	Equity Position
Balance Sheet Portfolio Basis Approach	Customer Credit Risk Profile	Customer Behaviour	Customer Profitability	Financial Management Accounting
Cash Flow Direct/Indirect	Debt Restructure Analysis	Customer Delinquency	Investment Arrangement Analysis	Funds Maturity
Cash Flow Direct/Indirect Financial Institution	Interest Rate Risk Analysis	Customer Loyalty	Location Profitability	Income Analysis
Income Statement by Function/Nature/FI	Involved Party Exposure	Individual Customer Profile	Organization Unit Profitability	Interest Rate Sensitivity
Statement of Changes in Equity	Liquidity Risk	Lead Analysis	Product Analysis	Net Interest Margin Variance
Sarbanes Oxley Act Analysis	Non Performing Loan Analysis	Market Analysis	Profitability Analysis	Short Term Funding Management
Sarbanes Oxley Act Balance Sheet Analysis	Operational Risk Assessment	Wallet Share Analysis	Transaction Profitability Analysis	Structured Finance

Business Solution Templates

..... analyzing data for KPIs and reports

More than 80 **Business Solution Templates (BSTs)** provide a list of financial services industry key performance indicators grouped by functional reporting areas such as marketing, financial analytics, profitability and risk and regulatory issues. These provide the basis for rapid customization and prototyping of customer reporting requirements into a range of OLAP reporting environments. The BSTs enable effective communication between business and IT and provide a consistent reporting structure for every data mart produced.

Application Solution Templates

..... analyzing data for applications

The **Application Solution Templates (ASTs)** provide a suggested list of data requirements for mathematical or statistical analytical functions often implemented in technologies such as data mining tools for analysis required for areas such as Basel II calculations, or customer relationship management advanced segmentation or scoring. The ASTs also define the result data, held in the data warehouse, a vital area often overlooked especially for ongoing data mining or risk scoring model verification. With the ASTs you can quickly determine the required coverage in the BDW for non-reporting application data requirements.

Banking Data Warehouse Model

..... designing the central data warehouse

The **Banking Data Warehouse Model (BDWM)** provides a logical entity-relationship model for an enterprise-wide data warehouse. Comprising over 930 entities and over 5350 attributes, it forms the strategic blueprint for implementing or re-engineering a data warehouse on a project-by-project basis. The model allows warehouse initiatives to be scoped, analyzed and designed in such a way that each project builds on the results of previous projects. The BDWM also supports the data requirements for risk and compliance in addition to the functional reporting areas such as marketing, financial analytics, profitability and asset & liability management. The BDWM delivers competitive advantage by providing consolidated data for MIS, risk and financial reporting. It is a proven scalable model on all data warehouse platforms from small regional banks to large international universal banks, on all hardware and software platforms. It enables phased implementation based on prioritized business requirements.

The **Banking Data Warehouse (BDW)** is a combination of the Financial Services Data Model, the Business Solution Templates, the Application Solution Templates, and the Banking Data Warehouse Model.

IFW Process & Integration Models for Business Process Modeling, Application Rationalization, Integration, Component Based Development, and SOA

Examples of the Business Scope of the Process & Integration Models

Account / Transaction Management	Relationship Management	Risk & Compliance Management	Product/Marketing Management
Activate Deposit / Loan Account	Administer Involved Party Information Access	Analyze Check Payment Float	Activate Market Offering Supply Arrangement
Administer Account Transfer	Develop Account Opportunity	Establish Basel II Pillar 1, 2 or 3 Policy	Develop Market Offering Campaign/Proposal
Administer Account Details Modification	Develop Customer Wallet Share	Establish Record Retention Policy	Evaluate Market Offering Compliance/Feasibility
Administer Account Reactivation	Establish Customer	Establish Risk Policy	Monitor Product Commitment
Administer Account Termination	Generate Cross Selling Lead	Generate Credit Risk Report	Prepare Market Offering Launch/Release
Administer Interest Accrual	Identify Potential Customer	Generate Market Risk Report	Request Market Offering Supply Arrangement
Administer Loan Commitment	Maintain Payment Beneficiary Details	Report Internal Control Efficacy	
Administer Deposit	Maintain Registered Beneficiary Details	Generate Operational Risk Report	
Administer Withdrawal	Modify Involved Party Details	Provide Business Process Control	
Apply Account Fee	Provide Customer Relationship Interview	Provide Operational Risk Capital Allocation	
Provide Account Proposal	Provide Involved Party Information	Report Internal Control Efficacy	
Provide Account Statement	Review Counterparty Credit Limit	Review Counterparty Risk Rating	
Provide Deposit / Loan Account Offer	Review Customer Portfolio	Review Finance Service Commitment	
Provide Maturity Prenotification	Review Involved Party Information	Review Loan Account	
	Terminate Involved Party Information	Review Loan Portfolio Quality	
		Review Risk Position	

Business Process Models

..... analyzing & designing business processes

The **Business Process Models** define the generic structure of a financial services organization's processes in a way that is independent of channel, technology and organization structure. Their purpose is to highlight re-useable elements, streamline processes, and incorporate compliance within business processes. The models document the logical structure of over 300 business processes, comprising over 1600 activities. They support the operational risk requirements of Basel II; provide a ready made set of process definitions with a customer focus; encourage a common process language across disparate lines of business; and can reduce time to market for new products.

Business Object Model

..... analyzing services & components

The **Business Object Model (BOM)** provides a template for requirements, in UML-model format, for the specification of business functions that can be implemented in software. It provides a proven set of requirements specifications for the integration of business process and data services integration, which supports the generation of new software services, or the integration of existing applications into an optimized business process. It contains UML based use cases linked to the Business Process Models required for a Services Oriented Architecture (SOA). It provides a structured starting point for the analysis and understanding of business concepts and common definitions for improved accuracy and consistency.

Interface Design Model

..... Designing services & components

The **Interface Design Model (IDM)** is a technical design model derived from the BOM that supports the implementation of business functions implemented as a set of software services, such as those provided in an SOA environment. The IDM translates the requirements captured in the BOM into a component and services model. The IDM remains independent of technology and represents leading-practice component and messaging design. The IDM has over 650 objects and over 2500 services. The IDM can simplify and ensure accuracy of interaction between business and IT; enable the integration of all new developments; ensure consistency of messaging and component architectures; directly deploy to integration environments such as WebSphere Business Integration. As it is a model based design, the risk of integration failure of the service components is drastically reduced and there is a significant reduction in the amount of redundant or overlapping service components, as there is a predefined, proven architecture of components provided.

DB2 Information Management Software

WebSphere software

Rational software

